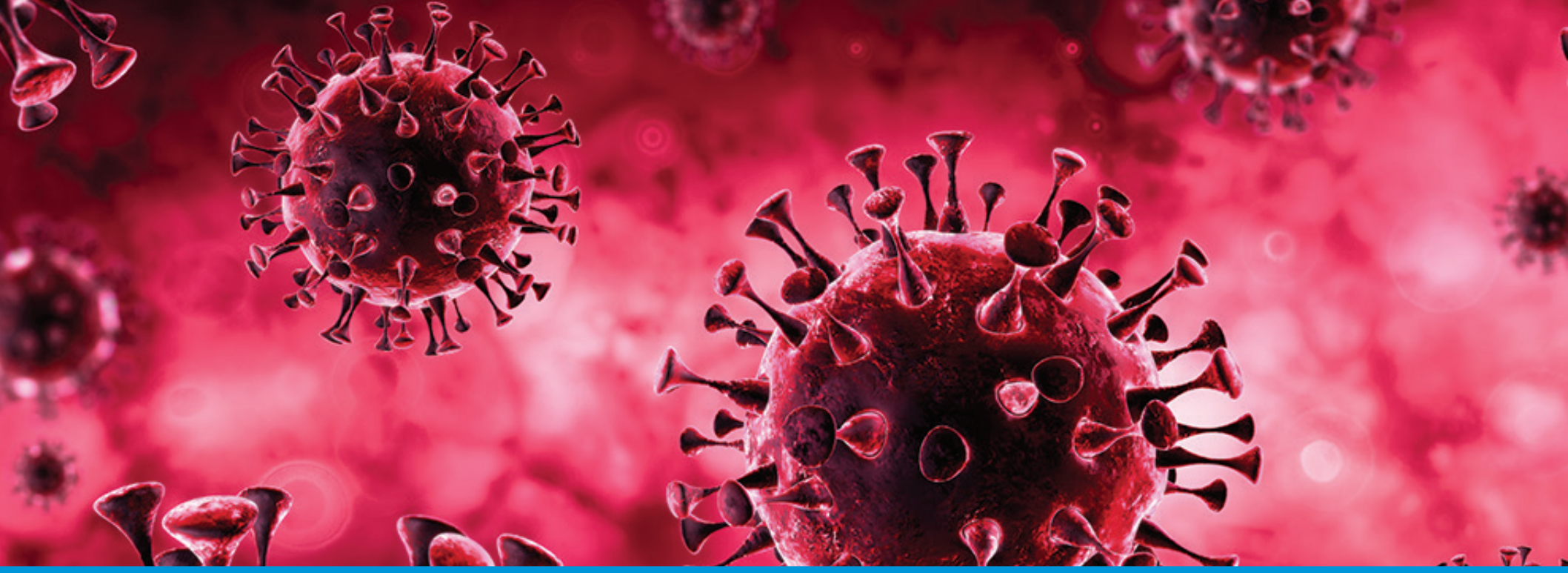

CORONAVIRUS CREATES A NEW DAWN FOR THE LUBRICATION OIL SECTOR

The swift proliferation of the novel coronavirus (COVID-19) is taking the world by storm. The gravity of this pandemic is staggering and has taken a grave toll on every walk of life, including the lubrication oil industries. Foremost, oil prices have seen the greatest impact as their values decline steeply due to lower demands and limited transportation [1]. This has culminated in a substantial reduction in the production of oil, capital, and spending. The barrel has become more valuable than its contents.

Oil drilling has been diminished, and various petroleum companies have unanimously agreed to delay any future operations. Amid limiting oil production, countries have also amped up oil and gas tariffs for both exports and imports which admonishes international trading [2]. In this paper, we will further examine the multifaceted implications of the virus on the world's lubricant economy.

With extreme efforts to contain the virus, entire nations have been placed on lockdown, and transportation vehicles have been banned on the streets of many cities and regions. In March, stock prices of oil and gas companies shaved off billions of dollars, and the Organization of the Petroleum Exporting Countries (OPEC) agreed to cut production by 1.5 million barrels per day, bpd. In addition, Brent Crude oil prices dropped dramatically that month as shown in figure 1.

On April 2, oil prices did experience an immediate upswing following a tweet from President Trump with WTI Crude Oil soaring 25.90% and Brent Crude rising 20.57% at $29.83. Saudi Arabia's official news agency, SPA, stated at this time that Saudi Arabia is calling for an emergency meeting for OPEC+ states and 'another group of countries" according to oilprice.com [6].

While this is a positive turn of events for an industry imperiled, there are many hurdles still facing oil, gas and lubricants during this tumultuous time. Not only is gasoline and diesel reduced for automotive vehicles, but airplanes are also banned for international flights which decreased the consumption of kerosene or jet fuel.

Furthermore, Bahamas Petroleum have decided to delay the spudding of the Perseverance #1 well. With the proliferation of the virus, safety is the primary concern, as drilling and other operations are set to resume only when deemed safe. As of now, the target date for drilling will be changed from April 2020 to late May/early June 2020. The company believes that safe and cost-effective drilling is accomplished through continuous operation, which can only be done smoothly with a full capacity of available staff. The most salient points of concern include the following: Continual drilling for 45-60 days; transportation of critical personnel to and from drilling rigs; and availability and pricing of equipment and goods [4]. In addition to drilling, LNG regasification projects could be delayed in 2020. Most of the LNG regasification terminals are in demanding areas of Asia such as China and India. These areas, coincidentally, are the epicenters of the COVID-19 outbreak. China has drastically reduced LNG imports and lowered gas demands [2]. South Korea and Japan have terminals that will be delayed in operation and construction, respectively [2]. In India, the project is scheduled for commission and it remains uncertain whether commissioning gets delayed [2].

With the current decline of the lubricant oil industry, electric vehicles (EVs), as a competitor, become a pivotal point of interest. The reduction of burning fossil fuels and carbon monoxide pollution now stands in stark relief and is a testament to how clean the air could be with EVs operating in lieu of internal combustion engine (ICE) vehicles. Nitrogen dioxide is a good indicator of fossil fuel emissions and was captured by satellites as shown in figure 3 [5].

It is definitive from the side-by-side comparison that the limiting of transportation has led to a significant reduction of nitrogen-dioxide pollution from fossil fuels. This attests to how COVID-19 may give EVs a push to prominence as a substitute to ICE vehicles in the future. In addition, millions of people have started working from home, if this has no adverse effect on their productivity, many may

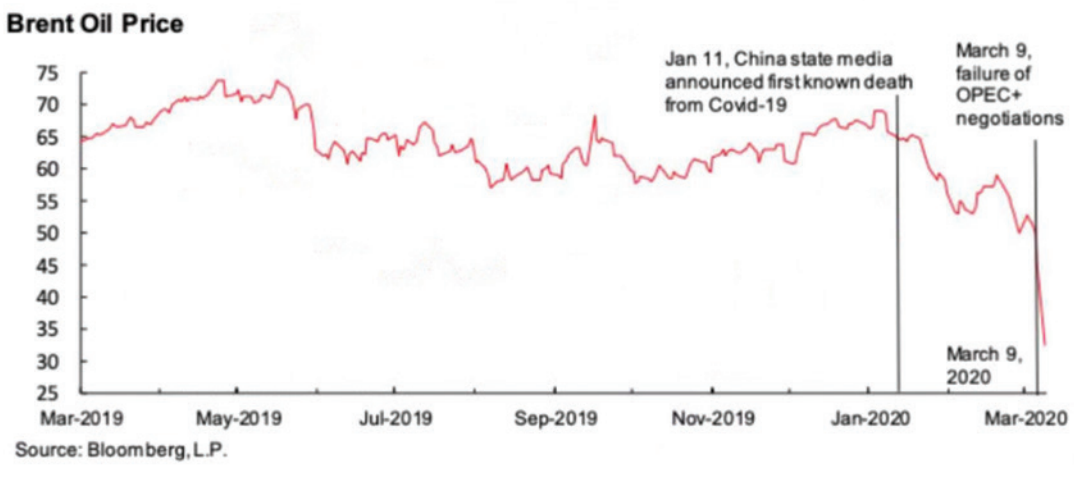

Figure 1: Brent Crude oil price [3]

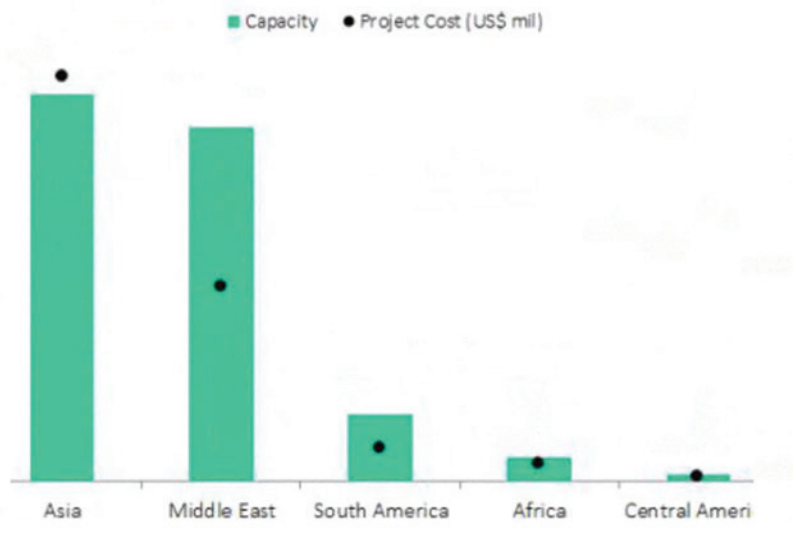

Figure 2: Capacity and Project Cost of LNG Regasification Projects 2020

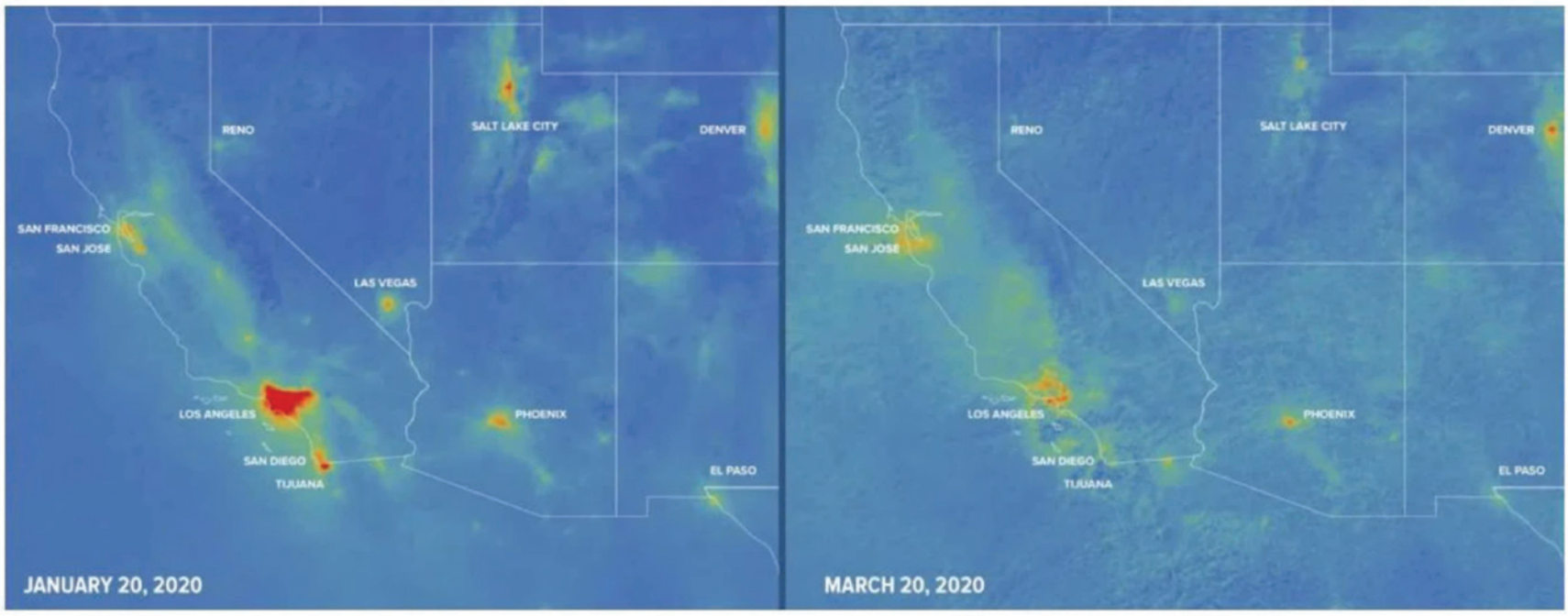

Figure 3. Nitrogen dioxide pollution [5]

continue to do so after the restrictions on movement have been lifted, thus further reducing pollution levels, as well as reducing petroleum usage. However, this speculation is preliminary and with the continuation of the current COVID-19 outbreak, there is little worry for oil industries at the present time.

The lubricant oil industry took a blatant hit from COVID-19, and its futures do not look promising as it depreciates while competitors rise. Nevertheless, oil is an integral part of society and will continue to be of use after this pandemic subsides.

In an auspicious upturn, oil prices spiked on April 2, after Mr. Trump's tweet stating that he was in correspondence with the Saudi Crown Prince, and anticipated that Saudi Arabia would "cut back approximately 10 Million Barrels, and maybe substantially more," catapulting oil prices through the roof by at least 20% [6]. Welcome news, but also an indicator of the volatility of the current market, if the price of oil can lurch in such a manner, caused by a slither of social media dialogue.

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Author Contact Details

• **Dr. Raj Shah, Koehler Instrument Company** • Holtsvile, NY 11742 USA • Email: rshah@koehlerinstrument.com • **Web: www.koehlerinstrument.com**

Dr. Raj Shah is a Director at Koehler Instrument Company in New York, where he has worked for the last 25 years. He is an elected Fellow by his peers at IChemE, STLE, AIC, NLGI, INSTMC, The Energy Institute and The Royal Society of Chemistry. He is also a Chartered Scientist with the Science Council, a Chartered Petroleum Engineer with the Energy Institute and a Chartered Engineer with the Engineering council, UK. An ASTM Eagle award recipient, Dr. Shah recently coedited the bestseller, "Fuels and Lubricants handbook", details of which are available at https://www.astm.org/DIGITAL_LIBRARY/MNL/SOURCE_PAGES/MNL37-2ND_foreword.pdf More information on Raj can be found at https://news.psu.edu/story/612237/2020/03/18/ chemical-engineering-alumnus-recognized-multiple-honors He can be reached at rshah@koehlerinstrument.com.


Dr. Raj Shah

• **David Phillips, Content Editor, Petro Industry News** • david@pin-pub.com. • **Web: petro-online.com**

Mr. David Phillips has been with International Labmate for over two decades and is currrently International Sales Manager for Petro Industry News for over a decade.


David Phillips

• **Anson Law, Chemical Engineering at Stony brook University • Long island NY**

Anson Law is a chemical engineering student at Stony Brook University in Long Island, NY and a part of the thriving internship program at Koehler Instrument Company.


Anson Law